



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2017-0053; FRL-9978-46-Region 6]

Approval and Promulgation of Implementation Plans; Texas; Attainment Demonstration for the Houston-Galveston-Brazoria Ozone Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing approval of elements of a State Implementation Plan (SIP) revision for the Houston-Galveston-Brazoria 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) nonattainment area (HGB area). Specifically, EPA is proposing approval of the attainment demonstration, a reasonably available control measures (RACM) analysis, the contingency measures plan in the event of failure to attain the NAAQS by the applicable attainment date, and Motor Vehicle Emissions Budgets (MVEBs) for 2017, which is the attainment year for the area. EPA is also notifying the public of the status of EPA's adequacy determination for these MVEBs for the HGB area.

DATES: Written comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket No. EPA-R06-OAR-2017-0053, at <http://www.regulations.gov> or via email to young.carl@epa.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information

(CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact Carl Young, 214-665-6645, young.carl@epa.gov. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

Docket: The index to the docket for this action is available electronically at www.regulations.gov and in hard copy at the EPA Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available at either location (e.g., CBI).

FOR FURTHER INFORMATION CONTACT: Carl Young, 214-665-6645, young.carl@epa.gov. To inspect the hard copy materials, please schedule an appointment with Mr. Young or Mr. Bill Deese at 214-665-7253.

SUPPLEMENTARY INFORMATION: Throughout this document wherever “we,” “us,” or “our” is used, we mean the EPA.

Table of Contents

I. Background

A. The 2008 Ozone NAAQS and the HGB Area

B. CAA and Regulatory Requirements for Ozone Attainment Demonstration SIPs

C. State SIP Submittal

II. The EPA's Evaluation

A. Modeling and Attainment Demonstration

1. Photochemical Grid Model Selection
2. What Time Period (Episode) did Texas Choose to Model?
3. How well did the Model Perform?
4. Once the Base Case is Determined to be Acceptable, how is the Modeling Used for the Attainment Demonstration?
5. What did the Results of TCEQ's 2017 Future Year Attainment Demonstration Modeling Show?
6. What are EPA's Conclusions of the Modeling Demonstration?
7. Weight of Evidence
 - a. What Weight of Evidence has been Evaluated?
 - b. What Additional Modeling-Based Evidence did Texas Provide?
 - c. Other Non-Modeling WOE
 - d. Other WOE Items from Texas Not Currently Quantified with Modeling:
Additional Programs/Reductions, etc.

8. Is the Attainment Demonstration Approvable?

B. RACM

C. Contingency Measures Plan

D. MVEBs

E. CAA 110(l) Demonstration

III. Proposed Action

IV. Statutory and Executive Order Reviews

I. Background

A. *The 2008 Ozone NAAQS and the HGB Area*

Ground-level ozone is an air pollutant that is formed from the reactions of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) (77 FR 30088, 30089, May 21, 2012). In 2008 we revised the 8-hour ozone primary and secondary NAAQS to a level of 0.075 parts per million (ppm) to provide increased protection of public health and the environment (73 FR 16436, March 27, 2008). The Houston-Galveston-Brazoria 2008 8-hour ozone NAAQS nonattainment area (HGB area) was classified as a “Marginal” ozone nonattainment area for the 2008 8-hour ozone NAAQS (77 FR 30088, May 21, 2012). The area consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller counties. The area was initially given an attainment date of no later than December 31, 2015 (77 FR 30160, May 21, 2012).

On December 23, 2014, the D.C. Circuit Court issued a decision rejecting, among other things, our attainment deadlines for the 2008 ozone nonattainment areas, finding that we did not have statutory authority under the CAA to extend those deadlines to the end of the calendar year. *NRDC v. EPA*, 777 F.3d 456, 464-69 (D.C. Cir. 2014). Consistent with the court’s decision we modified the attainment deadlines for all nonattainment areas for the 2008 ozone NAAQS, and set the attainment deadline for all 2008 ozone Marginal nonattainment areas, including the HGB area as July 20, 2015 (80 FR 12264, March 6, 2015). The HGB area qualified for a 1-year extension of the attainment deadline and we revised the attainment deadline to July 20, 2016 (81 FR 26697, May 4, 2016). As the HGB area did not meet the revised attainment deadline of July 20, 2016, we reclassified the area to “Moderate” and set a due date for submittal of a revised SIP

of January 1, 2017 (81 FR 90207, December 14, 2016). The 2008 ozone NAAQS attainment deadline for Moderate areas is July 20, 2018 (40 CFR 51.1103). As an attainment showing is based on the most recent three full years of ozone data available, the relevant years for demonstrating attainment by the attainment deadline for Moderate areas is 2015-2017 and the “attainment year” is 2017 (80 FR 12313, 12268).

B. CAA and SIP Requirements for the HGB Area

When we reclassified the HGB area, we also identified the SIP requirements for the area. The requirements being addressed in this notice are: (1) modeling and an attainment demonstration (40 CFR 51.1108), (2) RACM (40 CFR 51.1112), (3) a contingency measures plan in the event of failure to attain the NAAQS by the applicable attainment date (CAA sections 172(c)(9) and 182(c)(9)), and (4) attainment MVEBs for 2017, which is the attainment year for the HGB area (40 CFR 93.118(b)).

For areas classified as Moderate and above, CAA section 182(b)(1)(A) requires a SIP revision that provides for VOC and NO_x reductions as necessary to attain the ozone standard by the applicable attainment date. For areas classified as Moderate nonattainment or above for the 2008 ozone NAAQS, adequacy of an attainment demonstration shall be demonstrated by means of a photochemical grid model or any other analytical method determined by the Administrator to be at least as effective (40 CFR 51.1108).

We previously approved SIP revisions addressing the following requirements for the HGB area: (1) emissions inventory (80 FR 9204, February 20, 2015) and (2) confirmation of provisions addressing emissions statements from facilities, new source review emission offsets and a basic vehicle inspection and maintenance program (82 FR 22291, May 15, 2017). In a separate action we are proposing to approve the HGB area reasonable further progress (RFP)

demonstration and RFP milestone failure contingency measures plan (83 FR 17964, April 25, 2018). We plan to address the HGB area's reasonable available control technology demonstration in a separate action.

C. State SIP Submittal

On December 29, 2016, Texas submitted a SIP revision for the HGB area. The SIP revision included a description of how CAA requirements for the 2008 ozone NAAQS in the HGB area are met for: (1) modeling and attainment demonstration, (2) RACM, (3) a contingency plan and (4) MVEBs. A copy of the SIP revision is available on line at www.regulations.gov, Docket number EPA-R06-OAR-2017-0053.

II. The EPA's Evaluation

We have prepared technical support documents (TSDs) for this rulemaking which detail our evaluation. Our TSDs may be accessed online at <http://www.regulations.gov>, Docket No. EPA-R06-OAR-20173-0053.

A. Modeling and Attainment Demonstration

EPA's regulations at 40 CFR 51.1108(c) specifically require that areas classified as moderate and above submit a modeled attainment demonstration based on a photochemical grid modeling evaluation or any other analytical method determined by the Administrator to be at least as effective as photochemical modeling. Section 51.1108(c) also requires each attainment demonstration to be consistent with the provisions of section 51.112, including Appendix W to 40 CFR part 51 (i.e., "EPA's Guideline on Air Quality Models," 70 FR 68218, November 9, 2005 and 82 FR 5182, January 17, 2017). See also EPA's "Guidance on the Use of Models and Other Analyses for Air Quality Goals in Attainment Demonstrations for Ozone, PM_{2.5}, and Regional Haze," April 2007 and "Draft Modeling Guidance for Demonstrating Attainment of Air

Quality Goals for Ozone, PM_{2.5}, and Regional Haze,” December 2014 (hereafter referred to as “EPA’s 2007 A.D. guidance” and “EPA’s 2014 Draft A.D. guidance”)¹, which describe criteria that an air quality model and its application should meet to qualify for use in an 8-hour ozone attainment demonstration. For our more detailed evaluation of the attainment demonstration (modeling and the Weight of Evidence (WOE) analyses) for the HGB 8-hour Ozone Attainment Demonstration see the “Modeling and Other Analyses Attainment Demonstration” (MOAAD) TSD. The MOAAD TSD also includes a complete list of applicable modeling guidance documents. These guidance documents provide the overall framework for the components of the attainment demonstration, how the modeling and other analyses should be conducted, and overall guidance on the technical analyses for attainment demonstrations.

As with any predictive tool, there are inherent uncertainties associated with photochemical modeling. EPA’s guidance recognizes these limitations and provides approaches for considering other analytical evidence to help assess whether attainment of the NAAQS is demonstrated. This process is called a WOE determination. EPA’s modeling guidance (updated in 1996, 1999, and 2002) discusses various WOE approaches. EPA’s modeling guidance has been further updated in 2005, 2007 and in addition a draft in 2014 was issued for the 2008 8-hour ozone attainment demonstration procedures. EPA guidance has consistently recommended that all attainment demonstrations include supplemental analyses, WOE, in addition to the recommended modeling. These supplemental analyses would provide additional information such as data analyses, and emissions and air quality trends, which would help strengthen the overall conclusion drawn from the photochemical modeling. EPA’s Guidance for 1997 8-hour ozone SIPs was that a WOE analysis is specifically recommended to be included as

¹ A.D. is Attainment Demonstration.

part of any attainment demonstration SIP where the modeling results predict Future Design Values (FDVs)² ranging from 82 to less than 88 ppb (EPA's 2005 and 2007 A.D. Guidance documents). EPA's recent 2014 Draft A.D. Guidance removed the specific range and indicated that WOE should be analyzed when the results of the modeling attainment test are close to the standard. EPA's interpretation of the Act to allow a WOE analysis has been upheld. See *1000 Friends of Maryland v. Browner*, 265 F. 3d 216 (4th Cir. 2001) and *BCCA Appeal Group v. EPA*, 355 F.3d 817 (5th Cir. 2003).

TCEQ submitted the HGB attainment demonstration SIP with photochemical modeling and a WOE analyses on December 29, 2016. The results of the photochemical modeling and WOE analyses are discussed below.

1. Photochemical Grid Model Selection

Photochemical grid models are the state-of-the-art method for predicting the effectiveness of control strategies in reducing ozone levels. The models use a three-dimensional grid to represent conditions in the area of interest. TCEQ chose to use the Comprehensive Air Model with Extensions (CAMx), Version 6.31 photochemical model for this attainment demonstration SIP. The model is based on well-established treatments of advection, diffusion, deposition, and chemistry. TCEQ has used the CAMx model in other SIPs and EPA has approved many SIPs using CAMx based modeling analyses. 40 CFR Part 51 Appendix W indicates that photochemical grid models should be used for ozone SIPs and lists a number of factors to be considered in selecting a photochemical grid model to utilize. EPA has reviewed the TCEQ's

² The design value is the truncated 3-year average of the annual fourth highest daily maximum 8-hour average ozone concentration (40 CFR 50, Appendix I). Future Design Value is the modeling based projected Design Value in the 2017 Future Year.

reasons for selecting CAMx and EPA agrees with the choice by TCEQ to utilize CAMx for this SIP.

In this case, TCEQ has developed a modeling grid system that consists of three nested grids. The outer grid stretches from west of California to east of Maine and parts of the Atlantic Ocean to the east, and from parts of southern Canada in the north to much of Mexico to the south extending to near the Yucatan Peninsula on the southern edge. The model uses nested grid cells of 36 km on the outer portions, 12 km for most of the Region 6 states (most of New Mexico and all of Oklahoma, Arkansas, Louisiana, and Texas) and 4-kilometer grid cells for much of Texas (not including West Texas and the Panhandle) and portions of nearby States. The 4-kilometer grid cells include the HGB Nonattainment Area. For more information on the modeling domain, see the MOAAD TSD. The model simulates the movement of air and emissions into and out of the three-dimensional grid cells (advection and dispersion); mixes pollutants upward and downward among layers; injects new emissions from sources such as point, area, mobile (both on-road and nonroad), and biogenic into each cell; and uses chemical reaction equations to calculate ozone concentrations based on the concentration of ozone precursors and incoming solar radiation within each cell. Air quality planners choose historical time period(s) (episode(s)) of high ozone levels to apply the model. Running the model requires large amounts of data inputs regarding the emissions and meteorological conditions during an episode.

Modeling to duplicate conditions during an historical time period is referred to as the base case modeling and is used to verify that the model system can predict historical ozone levels with an acceptable degree of accuracy. It requires the development of a base case inventory, which represents the emissions during the time period for the meteorology that is being modeled. These emissions are used for model performance evaluations. Texas modeled much of the 2012

ozone season (May 1 – September 30), so the base case emissions and meteorology are for 2012. If the model can adequately replicate the measured ozone levels in the base case and responds adequately to diagnostic tests, it can then be used to project the response of future ozone levels to proposed emission control strategies.

TCEQ chose to use recent versions of Weather Research and Forecasting Model (WRF) version 3.7.1 for the meteorological modeling for generation of meteorological fields and the Emission Processing System (EPS) version 3 for the emission processing to generate the necessary meteorological and emission fields to be used in CAMx. TCEQ also chose one of the most recent versions of CAMx, version 6.31 for the photochemical grid modeling. WRF is considered a state of the science meteorological model and its use is acceptable in accordance with 40 CFR Part 51 Appendix W Section 5. The use of EPS for emissions processing and CAMx for photochemical modeling are also one of the two predominant modeling platforms used for SIP level modeling and these models and versions that TCEQ used. EPA reviewed the models used and modeling grids and determined that the model versions used are recent versions of the model and the modeling grid is large and sufficiently sized to try and minimize the impact of sources outside the grid. Both the models used and the modeling grid are acceptable and in accordance with 40 CFR Part 51 Appendix W Section 5.

2. What Time Period (Episode) did Texas Choose to Model?

Texas chose to model May 1st thru September 30th, which is the core of the 2012 ozone season (HGB ozone season is January 1st through December 31st) and includes a number of historical episodes with monitored exceedances. The 2012 ozone season was a period when multiple exceedance days occurred with a good variation of meteorological conditions that lead to ozone exceedances in the HGB area. Texas evaluated other years (2011 and 2013) in their

episode selection process. The 2011 core ozone season period had a number of exceedances but was also complicated by a drought through much of Texas and surrounding states that made 2011 less desirable than 2012 which had a similar level of exceedances. The 2013 core ozone season period had significantly less exceedances than 2012. Other years considered either did not have as many exceedances or were older episodes so TCEQ chose the 2012 period to model.

We evaluated Texas' 2012 period/episode selection for consistency with our modeling guidance (2007, and Draft 2014 versions). Among the items that we considered were the ozone levels during the selected period compared to the Design Value (DV) at the time; how the meteorological conditions during the proposed episode match with the conceptual model of ozone exceedances that drive the area's DV; number of days modeled; and whether the time period selected was sufficiently representative of the meteorology that drives elevated ozone in the area. This evaluation is necessary to insure the model would be adequate for evaluating future air quality and any potential control strategies. EPA's guidance indicates that all of these items should be considered when evaluating available episodes and selecting periods/episodes to be modeled. EPA believes that the 2012 core ozone period (May 1 – September 30) includes many exceedance days and is an acceptable time period for use in TCEQ's development of the 8-hour ozone attainment plan. This period has a number of meteorological conditions that are consistent with the conditions that yield high ozone in the conceptual model for the HGB area, and was among the episode periods evaluated with the highest number of ozone exceedances. In selecting periods, it is advantageous to select periods with several exceedance days and with multiple monitors exceeding the standard each day when possible. This 2012 period was among the best of all the periods evaluated when the selection was being conducted. EPA concurs with this period. See the MOAAD TSD for further discussion and analysis.

3. How well did the Model Perform?

Model performance is a term used to describe how well the model predicts the meteorological and ozone levels in an historical episode. EPA has developed various diagnostic, statistical and graphical analyses which TCEQ performed to evaluate the model's performance. TCEQ performed several analyses of both interim model runs and the final base case model run and deemed the model's performance adequate for control strategy development. As described below, we agree that the TCEQ's model performance is adequate.

From 2014 to 2016, several iterations of the modeling were performed by TCEQ incorporating various improvements to the meteorological modeling, the 2012 base case emissions inventory, and other model parameters. TCEQ shared model performance analyses with EPA and EPA provided input. This data included analysis of meteorological outputs compared to benchmark statistical parameters. TCEQ also performed graphical analyses of the meteorology and extensive analyses of the photochemical modeling for several base case modeling runs.

EPA has reviewed the above information and is satisfied that the meteorological modeling was meeting most of the statistical benchmarks, and was transporting air masses in the appropriate locations for most of the days.³ EPA also conducted a review of the model's performance in predicting ozone and ozone pre-cursors and found that performance was within

³ EPA's modeling guidance for both meteorological modeling and ozone modeling indicates general goals for model performance statistics based on what EPA has found to be acceptable model performance goals from evaluations of a number of modeling analyses conducted for SIPs and Regulatory development. EPA's guidance also indicates that none of the individual statistics goals is a "pass/fail" decision but that the overall suite of statistics, time series, model diagnostics, and sensitivities should be evaluated together in a holistic approach to determine if the modeling is acceptable. Modeling is rarely perfect, so EPA's basis of acceptability is if the model is working reasonably well most of the time and is doing as well as modeling for other SIPs and EPA rulemaking efforts. For more details on model performance analyses and acceptability see the MOAAD TSD. (EPA 2007 A.D. Guidance, EPA 2014 Draft A.D. Guidance, and Emery, C. and E. Tai, (2001), Enhanced Meteorological Modeling and Performance Evaluation for Two Texas Ozone Episodes, prepared for the Texas Near Non-Attainment Areas through the Alamo Area Council of Governments", by ENVIRON International Corp, Novato, CA).

the recommended 1-hour ozone statistics for most days. We evaluate 1-hour time series and metrics as this information has less averaging/smoothing than the 8-hour analyses and results in a higher resolution for evaluating if the modeling is getting the rise and fall of ozone in a similar manner as the monitoring data. We also evaluated the 8-hour statistics, results of diagnostic and sensitivity tests, and multiple graphical analyses and determined that overall the ozone performance was acceptable for Texas to move forward with future year modeling and development of an attainment demonstration.

EPA does not expect any modeling to necessarily be able to meet all the EPA model performance goals, but relies on a holistic approach to determine if the modeling is meeting enough of the goals and the time series are close enough and diagnostic/sensitivity modeling indicates the modeling is performing well enough to be used for assessing changes in emissions for the model attainment test.⁴ EPA agrees that the overall base case model performance is acceptable, but notes that even with the refinements, the modeling still tends to have some underestimation bias on some of the higher ozone days. See the MOAAD TSD for further analysis.

4. Once the Base Case is Determined to be Acceptable, how is the Modeling Used for the Attainment Demonstration?

Before using the modeling for attainment test and potential control strategy evaluation, TCEQ evaluated the base case emission inventory, and made minor adjustments to the inventory to account for things that would not be expected to occur again or that were not normal.

Examples of this are: (1) Inclusion of electric generating units, or EGUs, that were not operating due to temporary shutdown during the base case period but were expected to be operating in

⁴ *Id.*

2017 and (2) Adjusting the hour specific EGUs continuous emissions monitor (CEM) based NO_x emissions to a typical Ozone season day emission rate). This adjusted emission inventory is called the 2012 baseline emission inventory. The photochemical model is then executed again to obtain a 2012 baseline model projection.

Since the HGB area is classified as a Moderate nonattainment area, the attainment date is as expeditiously as practicable but no later than July 20, 2018. To meet this deadline, it is necessary for emission reductions to be in place by no later than what is termed the attainment year, which in this case is 2017. Future case modeling using the base case meteorology and estimated 2017 emissions is conducted to estimate future ozone levels factoring in the impact of economic growth in the region and State and Federal emission controls.

EPA's 8-hour ozone modeling guidance recommends that the attainment test use the modeling analysis in a relative sense instead of an absolute sense. To predict future ozone levels, we estimate a value that we refer to as the Future Design Value (FDV). First, we need to calculate a Base Design Value (BDV) from the available monitoring data. The BDV is calculated for each monitor that was operating in the base period by averaging the three DVs that include the base year (2012). The DVs for 2010-2012, 2011-2013, and 2012-2014 are averaged to result in a center-weighted BDV for each monitor.

To estimate the FDV, a value is also calculated for each monitor that is called the Relative Response Factor (RRF) using a ratio of future and baseline modeling results around each monitor. This calculation yields the RRF for that monitor. The RRF is then multiplied by the Base Design Value (BDV) for each monitor to yield the FDV for that monitor. The modeled values for each monitor may be calculated to hundredths of a ppb, then truncated to an integer (in ppb) as the final step in the calculation as recommended by EPA's guidance. The truncated

values are included in Table 1. TCEQ employed EPA's recommended approach for calculating FDV's. For information on how the FDV is calculated refer to the MOAAD TSD.

The 2014 Draft A.D. Guidance indicates that instead of using all days above the standard (0.075 ppm or 75 ppb) in the baseline, that the subset of 10 highest modeled baseline days at each monitor should be used for calculating an RRF.⁵ The 10 highest days are the 10 highest 8-hour maximum daily values at each specific monitor. TCEQ provided the 2017 FDV values for each of the monitors using the procedure in the 2014 Draft A.D. Guidance.

EPA has reviewed the components of TCEQ's photochemical modeling demonstration and finds the analysis meets 40 CFR Part 51, including 40 CFR Part 51 Appendix W – Guideline on Air Quality Models. For a more complete description of the details of the base and future case modeling inputs, set-up, settings, the meteorology and photochemical model performance analysis (and EPA's evaluation of these procedures and conclusions, see the MOAAD TSD in the Docket for this action (EPA-RO6-OAR-2017-0053).

5. What did the Results of TCEQ's 2017 Future Year Attainment Demonstration Modeling Show?

The results of the 2012 and 2017 baseline modeling run RRFs and model FDV calculations using EPA's 2014 Draft A.D Guidance methods are shown in Table 1. Table 1 includes the modeling projections prior to evaluating any other modeling sensitivity runs. EPA's full analysis for this HGB modeling and our results/conclusions for all the monitors is included in the MOAAD TSD.

Table 1. SIP Modeling Projections for 2017

⁵ The 10 highest baseline days at a monitor are summed and become the denominator and the future year values for the same 10 days are summed and become the numerator in the RRF calculation.

HGB Monitor	2012 BVD (ppb)	Relative Response Factor (RRF)	2017 FDV (ppb)	2017 FDV (ppb)
Manvel Croix Park - C84	85	0.934	79.41	79
Deer Park - C35	78.33	0.956	74.91	74
Houston East - C1	78	0.962	75.06	75
Park Place - C416	77.33	0.956	73.89	73
Houston Northwest - C26	80	0.925	74.01	74
Bayland Park - C53	78.67	0.943	74.21	74
Croquet - C409	78.67	0.934	73.49	73
Houston Monroe - C406	76.67	0.957	73.4	73
Seabrook Friendship Park - C45	76.33	0.948	72.34	72
Houston Texas Ave - C411	75	0.961	72.11	72
Houston Aldine - C8	76.67	0.947	72.59	72
Conroe Relocated - C78	78	0.936	73.04	73
Clinton Drive - C403	74.67	0.968	72.25	72
Houston Westhollow - C410	77.67	0.92	71.45	71
Lang - C408	76.33	0.934	71.31	71
Galveston - C1034	75.33	0.944	71.15	71
Channelview - C15	73	0.959	69.99	70
North Wayside - C405	73.67	0.953	70.23	70
Lynchburg Ferry - C1015	71	0.956	67.88	67
Lake Jackson - C1016	69.33	0.937	64.94	64

The second column is the Base DV for the 2012 period. Using the 2014 Draft A.D. Guidance, 19 of the 20 HGB area monitors are in attainment and one is projected to have a 2017 FDV of 79 ppb.

The standard attainment test is applied only at regulatory monitor locations. The 2007 A.D. Guidance and the 2014 Draft A.D. Guidance both recommend that areas within or near nonattainment counties but not adjacent to monitoring locations be evaluated in an unmonitored

areas (UMA) analysis to demonstrate that these UMAs are expected to reach attainment by the required future year. The UMA analysis is intended to identify any areas not near a monitoring location that are at risk of not meeting the NAAQS by the attainment date. EPA provided the Modeled Attainment Test Software (MATS) to conduct UMA analyses, but has not specifically recommended in EPA's guidance documents that the only way of performing the UMA analysis is by using the MATS software.

TCEQ used their own UMA analysis (called the TCEQ Attainment Test for Unmonitored areas or TATU). EPA previously reviewed TATU during our review of the modeling protocol for the HGB area (2010 Attainment Demonstration SIP) and we approved analysis using TATU in previous approval of the 2013 HGB 1997 8-hour attainment demonstration (See MOAAD TSD for 2013 SIP approval in Docket EPA-R06-OAR-2013-0387 (79 FR 57, January 2, 2014)). We are proposing approval of the use of the TATU tool as providing an acceptable UMA analysis for this SIP approval action (See MOAAD TSD for review and evaluation details). The TATU is integrated into the TCEQ's model post-processing stream and MATS requires that modeled concentrations be exported to a personal computer-based platform, thus it would be more time consuming to use MATS for the UMA. Based on past analysis, results between TATU and MATS are similar and EPA's guidance (2007 and Draft 2014) provides states the flexibility to use other technically supportable tools for the UMA.

The TATU analysis included in the SIP indicates the maximum in most of the unmonitored areas is not significantly different than the 2017 FDVs calculated using all days above 75 ppb in the baseline (2007 A.D. Guidance). TCEQ's TATU analysis found two unmonitored areas that indicated high values above the standard but neither of these areas are higher than the area wide maximum modeled value at Manvel Croix Park monitor that is part of

the monitored attainment test. One is a small unmonitored area on the Harris and Montgomery County border that is indicated just above the standard and areas in the Gulf of Mexico. The area on the Harris and Montgomery County border is an area between the Conroe and NW Harris Co. regulatory monitors but there is also a non-regulatory monitor (UH WG Jones Forest) that represents some of the area between these two regulatory monitors. In comparison to these two regulatory monitors the UH WG Jones Forest (UH WG) monitor's recent 4th High 8-hour ozone values (2013 – preliminary 2017)⁶ have been equal or similar to 4th Highs of at least one of these two regulatory monitors except in 2016 when the UH WG 4th High was higher. The 2016 UH WG 4th High was still several ppb lower than the 2016 HGB maximum 4th High indicating that this area including the unmonitored area did not represent the area with highest ozone levels in 2016. The UH WG DV (non-regulatory) has been within 3 ppb of one of these two regulatory monitors and also several ppb less than the HGB maximum DV in recent years (2013-preliminary 2017), further indicating that this unmonitored area is not an area of significant concern. The other area identified was an area over the Gulf of Mexico and parts of Galveston Island where there are no meteorology or ozone monitors to evaluate model performance/accuracy, the accuracy of the spatial interpolation, and the predicted 2017 FDVs, therefore these values are less reliable. Additionally, they are not higher than the value at Manvel Croix monitor.

We agree with TCEQ's analysis finding that the 2 areas identified that are outside of the monitored areas are not a concern because they are not higher than the value predicted at Manvel Croix and because of the issues discussed above. Therefore, the 2017 FDVs are properly capturing the geographic locations of the monitored peaks and no additional significant hotspots were identified that need to be further addressed.

⁶ The 2017 monitoring data is preliminary and still has to undergo Quality Assurance/Quality Control analysis and be certified by the State of Texas, submitted to EPA, and reviewed and concurred on by EPA.

For a more complete description of the modeling attainment test procedures and conclusions and EPA's evaluation of these procedures and conclusions, see the MOAAD TSD in the Docket for this action.

6. What are EPA's Conclusions of the Modeling Demonstration?

EPA has reviewed the modeling and modeling results and finds they meet 40 CFR Part 51 requirements. The modeling using the 2014 Draft A.D. Guidance indicates that 19 out of 20 of the monitors are projected to be in attainment in 2017 while one monitor has a 2017 FDV of 79 ppb, above the 2008 8-hour Ozone NAAQS (75 ppb). EPA concludes that given that 95% of the monitors are in attainment, only one monitor is predicted above the standard, and the unmonitored area analysis did not show any areas of concern with values higher than the maximum value at the Manvel Croix monitor, the overall modeling results are within the range⁷ where EPA recommends Weight of Evidence (WOE) be considered to determine if the attainment demonstration is approvable.

7. Weight of Evidence

a. Background

A WOE analysis provides additional scientific analyses as to whether the proposed control strategy, although not modeling attainment, demonstrates attainment by the attainment date. The intent of EPA's guidance is to recognize potential uncertainty in the modeling system and future year projections therefore utilize other supplemental information or WOE in deciding if attainment will be achieved. Thus, in the HGB case, even though the modeling predicts one

⁷ 2007 A.D. Guidance indicated within 2-3 ppb for the 1997 8-hour 84 ppb standard and the 2014 Draft A. D. Guidance indicated the model results should be close to the standard without giving an exact range. Only one of the 20 value is over with the 2014 Draft A.D. Guidance and EPA considers this be within the range of 'close' as indicated by the guidance (2014 Draft A.D. Guidance page 190 "In conclusion, the basic criteria required for an attainment demonstration based on weight of evidence are as follows: 1) A fully-evaluated, high-quality modeling analysis that projects future values that are close to the NAAQS."

out of 20 monitors has an FDV above the NAAQS, additional information (WOE) can provide a basis to conclude attainment is demonstrated. EPA's guidance indicates that several items should be considered in a WOE analyses, including the following: additional modeling, additional reductions not modeled, recent emissions and monitoring trends, known uncertainties in the modeling and/or emission projections, and other pertinent scientific evaluations. Pursuant to EPA's guidance, TCEQ supplemented the control strategy modeling with WOE analyses.

We briefly discuss the more significant components of the WOE that impacted EPA's evaluation of the attainment demonstration in this action. Many other elements are discussed in the MOAAD TSD that had less significant impact on EPA's evaluation. For EPA's complete evaluation of the WOE considered for this action, see the MOAAD TSD.

b. What Additional Modeling-Based Evidence did Texas Provide?

TCEQ used a modeling concept that tracks the ozone generated in the modeling from ozone precursors by location and category of type of emission source that is referred to as source apportionment.⁸ TCEQ performed source apportionment modeling using 2012 baseline and 2017 future case modeling databases using the Anthropogenic Precursor Culpability Assessment (APCA) tool.⁹ TCEQ provided analysis for select monitors that tend to drive the HGB area's DV (Manvel Croix, Aldine, and Deer Park) and two of the outer monitors that can have higher monitored values and also be more representative of background depending on the transport pattern of a given day (Galveston and Conroe Relocated). Overall, the APCA indicated that HGB emission sources contribute more on the 10 highest days that are used for the RRF and FDV calculations than on other days. For these 10 highest days used in the modeled attainment test at

⁸ Source apportionment allows the tracking of ozone generation from regions (such as upwind states or the HGB area, etc.) and also by source category (such as on-road, nonroad, EGU, point sources, etc.).

⁹ See 3.7.3 of the State's August 5, 2016 SIP submittal.

the higher monitors, the amount of 8-hour ozone at the monitor in 2017 due to emissions from local HGB sources was often in the 15-40 ppb range for Manvel Croix (10-day average 28.2 ppb from HGB emissions and 5.35 ppb from rest of Texas emissions), 6-48 ppb range for Aldine (10-day average 27.9 ppb from HGB emissions and 3.24 ppb from rest of Texas emissions), 7-32 ppb range for Deer Park (10-day average 18.1 ppb from HGB emissions and 5.2 ppb from rest of Texas emissions). This source apportionment indicates that on the worst days in the HGB area, local emission reductions and reductions within Texas are more beneficial than on other baseline exceedance days. This adds a positive WOE that HGB area reductions in mobile on-road and non-road categories, emission reductions in point source cap and trade programs as well as other categories aid in demonstrating attainment. When we say positive WOE, EPA is indicating that the WOE element factors more into supporting the demonstration of attainment. For EPA's complete evaluation of the modeled WOE elements considered for this action, see the MOAAD TSD.

c. Other Non-Modeling WOE

TCEQ showed that 8-hour and 1-hour ozone DVs have decreased over the past 12 years, based on monitoring data in the HGB Area (2005 through 2016). TCEQ indicated that the 2015 8-hour ozone DV for the HGB nonattainment area is 80 ppb at Manvel Croix, which is in attainment of the former 1997 8-hour standard (84 ppb) and demonstrates progress toward the current 75 ppb standard.

TCEQ's trend line for the 1-hour ozone DV shows a decrease of about 4 ppb per year, and the trend line for the 8-hour ozone DV shows a decrease of about 2 ppb per year and reaching attainment of the 75 ppb standard in 2017. The 1-hour ozone DVs decreased about 29% from 2005 through 2016 and the 8-hour ozone DVs decreased about 23% over that same time.

EPA has also supplemented TCEQ's monitoring data analysis with additional analysis of 2014-2016 and preliminary 2017 monitoring data¹⁰ (See Tables 2 and 3). There were 20 regulatory monitors in 2012 (base case year) so the modeling was restricted to FDVs at 20 monitors, but the regulatory ambient network has expanded to 21 monitors in recent years. The Manvel Croix monitor is located on the south side of the urban core, to the west of the Houston Ship Channel. The Aldine monitor is located on the north side of the urban core and to the northwest of the Houston Ship Channel. One of these two monitors has been setting the HGB area DV from 2009 through 2016 years (and preliminarily in 2017). The 2016 DV (2014-2016 data) data indicates that only three of the 21 regulatory monitors had a DV above the standard (Aldine – 79 ppb, West Hollow and Galveston - 76 ppb). Current preliminary 2015-2017 DV data indicates that only five of the 21 monitors in the HGB area may be above the standard with a preliminary 2017 DVs of 81 ppb at Aldine, Park Place and Bayland Park with 77 ppb, and Westhollow and Lang with 76 ppb¹¹.

The monitored DV is calculated by averaging the 4th High values from three consecutive years and truncating to integer (whole number) level in ppb. For example, the 2016 DV is the truncated average of 4th Highs from 2014 -2016. See Table 3 for the 2014-preliminary 2017 4th High 8-hour values. In 2014 none of the 21 monitors in the HGB area had a 4th High 8-hour high value above 75 ppb. In 2015 worse meteorology (more conducive for formation of ozone) occurred and the 4th high 8-hour exceedance value monitored at Aldine jumped to 95 ppb with the second highest value of 91 ppb at Lang (both 27 ppb higher than their 2014 value) and 15

¹⁰ The 2017 monitoring data is preliminary and still has to undergo Quality Assurance/Quality Control analysis and be certified by the State of Texas, submitted to EPA, and reviewed and concurred on by EPA.

¹¹ Any determination of whether the HGB area has attained the 2008 ozone NAAQS by the applicable attainment date is a separate analysis that will be part of a separate EPA rulemaking. This rulemaking is focused on whether the State's submitted attainment demonstration is approvable under CAA standards. EPA is not in a position at this time to determine whether the HGB area has attained by the applicable attainment date, given that the attainment date has not yet passed and 2017 monitoring data is still preliminary.

other monitors had 4th High 8-hour values greater than 75 ppb (17 of the 21 monitors were greater than 75 ppb). In 2016, the 4th High 8-hour values went back down and only Westhollow and Bayland Park monitors had 4th High 8-hour values greater than 75 ppb with 79 ppb and 78 ppb respectively, all other HGB area monitors (19 of 21) were 75 ppb or less. In the preliminary 2017 data, only 3 of the 21 monitors had 4th High 8-hour values above 75 ppb (Conroe – 79 ppb, Clinton Drive – 77 ppb, and Manvel Croix – 77 ppb) and the other 18 monitors had values of 75 ppb or less. It is unusual that the 79 ppb at the Conroe monitor was the monitor with the preliminary highest 4th High in 2017 in the HGB area and the Clinton Drive monitor had a 77 ppb, as these monitors are not some of the typical High DV monitors in HGB. The Conroe and Clinton Drive monitor's 2015 and 2016 DVs are below the standard (Clinton Drive 69 ppb both years and Conroe 2015 - 73 ppb and 2016 - 72 ppb) even with the higher ozone monitored in 2015. Considering as recently as 2012, 15 of 20 monitors were violating the NAAQS, the area has had large decreases in ozone levels.

Overall as seen in Tables 2 and 3 below, 2015 stands out with high ozone monitored data compared to other recent years (2014, 2016 and preliminary 2017). These 4th High 8-hour values support that the area with recent emission levels has been close to attaining the standard for several years. The high 2015 4th High 8-hour data is driving all the DVs for 2015, 2016, and preliminary 2017. To assess what might have occurred if 2015 hadn't been such a high year we have calculated the average of the last two years (2016 and preliminary 2017) 4th Highs and all are equal to or below 75 ppb except the Bayland Park monitor with 76 ppb,¹² confirming that 2015 is driving the recent DVs because the 2015 4th Highs are much higher than other recent years (2014, 2016, and preliminary 2017).

¹² Average of 2016 and preliminary 2017 4th Highs: Aldine - 74 ppb, Park Place - 68.5 ppb, Westhollow – 75 ppb and Lang - 69.5 ppb.

Despite the high 2015 4th High 8-hour data that contributed to higher 2015, 2016, and preliminary 2017 DV values, examination of the 4th High 8-hour values for 2014, 2016 and preliminary 2017, support the conclusion that the general long term trend identified by TCEQ of a steady reduction in DV of 2 ppb per year is anticipated to continue. Both the individual 4th High monitoring data from 2014, 2016, and 2017 and the average of the 2016 and preliminary 2017 data are strong WOE. The ozone data indicates that emission levels in HGB area and the meteorology that occurred in 2014, 2016, and 2017 have led to ozone levels that are consistent with attainment of the NAAQS. Overall, with the exception of the high 2015 data, the recent monitoring data provides a strong positive WOE.

Table 2. HGB Area Monitor DVs (2014-2017)¹

HGB Monitor	2014	2015	2016	2017 ¹
Baytown Eastpoint	66	68	69	71
Deer Park	72	69	67	68
Aldine	72	79	79	81
Clinton Drive	68	69	69	75
Croquet	75	75	71	71
Monroe	74	70	65	63
NW Harris Co.	75	73	69	73
Westhollow	76	75	76	76
Lang	74	78	74	76
Wayside	69	70	67	69
Mae Drive (Houston East)	72	74	73	75
Bayland Park	75	76	75	77
Seabrook	72	71	70	71
Channelview	67	68	68	69
Lynchburg	66	67	65	61
Park Place	74	77	72	74
Galveston	72	73	76	77
Conroe	76	73	72	74
Manvel	80	80	75	77
Lake Jackson	66	64	64	65

¹ 2017 DV and 4th High 8-hour values are preliminary data

Table 3. HGB Area Monitor 4th High 8-hour Values (2014-2017)¹

HGB Monitor	2014	2015	2016	2017 ¹	2016-2017 ¹ Avg.
Baytown Eastpoint	67	77	65	73	69
Deer Park	63	77	62	66	64
Aldine	68	95	74	74	74
Clinton Drive	58	84	65	77	71
Croquet	67	79	67	67	67
Monroe	65	73	57	59	58
NW Harris Co.	63	78	67	74	70.5
Westhollow	70	79	79	71	75
Lang	64	91	69	70	69.5
Wayside	62	78	62	68	65
Mae Drive (Houston East)	66	88	67	70	68.5
Bayland Park	67	80	78	74	76
Seabrook	65	83	64	67	65.5
Channelview	64	81	61	65	63
Lynchburg	59	79	59	46	52.5
Park Place	66	87	65	72	68.5
Galveston	71	84	74	73	73.5
Conroe	72	73	71	79	75
Manvel Croix	71	86	69	77	73
Lake Jackson	61	65	66	65	65.5

¹ 2017 4th High 8-hour values are preliminary data.

TCEQ also submitted WOE components that are further discussed in the MOAAD TSD including the following: conceptual model and selection of the 2012 period to fit the range of days and meteorological cycles that yield high ozone in HGB, meteorological transport clustering, additional ozone design value trends, ozone variability analysis and trends, NOx and VOC monitoring trends, emission trends, NOx and VOC chemistry limitation analysis, and local contribution analyses. Details of these WOE components that also provide positive WOE are

included in Chapter 5 of the December 29, 2016 SIP submittal and discussed in the MOAAD TSD.

d. Other WOE Items from Texas Not Currently Quantified with Modeling: Additional Programs/Reductions, etc.

REFINERY CONSENT DECREES - Texas noted that EPA's existing and continued efforts are resulting in many consent decrees that obtain reductions at refineries across the U.S. and approximately 14% of the nation's refining capacity is in the HGB area. Texas indicated that these consent decrees are yielding reductions in flaring operations, better monitoring of emissions using continuous emission monitors or predictive emission monitoring systems, and other emission reductions from large emissions sources at these facilities. Texas indicated that not all of these emissions have been quantified and included in the model, so some emission reductions required by these actions provide positive WOE.

TEXAS EMISSION REDUCTION PLAN (TERP) - The TERP program provides financial incentives to eligible individuals, businesses, or local governments to reduce emissions from polluting vehicles and equipment. In 2015, the Texas Legislature increased funding for TERP to \$118.1 million per year for FY 2016 and 2017, which was an increase of \$40.5 million per year which resulted in more grant projects in eligible TERP areas, including the HGB area. Texas also noted that since the inception of TERP in 2001 through August 2016, over \$1,013 million dollars have been spent within the state through TERP and the Diesel Emission Reduction Incentive Program (DERI) that has resulted in 171,945 tons of NO_x reductions in Texas by 2016. TCEQ also noted that over \$423.6 million in DERI grants have been awarded to projects in the HGB area through 2016 resulting with a projected NO_x reduction of 75,739 tons

that is also estimated as 14.1 tons per day of NO_x. These DERI and TERP benefits were not modeled but the reductions and future reductions do provide positive WOE.

LOW-INCOME VEHICLE REPAIR ASSISTANCE, RETROFIT, AND ACCELERATED VEHICLE RETIREMENT PROGRAM (LIRAP) - TCEQ established a financial assistance program for qualified owners of vehicles that fail the emissions test. The purpose of this voluntary program is to repair or remove older, higher emitting vehicles from use in certain counties with high ozone. In HGB area between December 12, 2007 and May 31, 2016, the program repaired 19,297 and retired and replaced 29,716 vehicles at a cost of \$98.1 million. Participating HGB area counties were allocated approximately \$20.1 million per year for LIRAP for FYs 2016 and 2017. This is an increase of approximately \$17.5 million per year over the previous biennium. These LIRAP benefits were not modeled but the reductions and future reductions do provide positive WOE.

LOCAL INITIATIVE PROJECTS (LIP) - Funds are provided to counties participating in the LIP for implementation of air quality improvement strategies through local projects and initiatives (Examples: Studies on emissions inspection fraud and targeting high emission vehicles). The 2016 and 2017 state budgets included increases of approximately \$1.9 million per year over previous biennium. These LIP benefits were not modeled but the reductions and future reductions do provide positive WOE.

LOCAL INITIATIVES - TCEQ indicated that there is an assortment of locally implemented strategies in the HGB nonattainment area including pilot programs, new programs, or programs with pending methodologies. These Local Initiatives benefits were not modeled but the reductions and future reductions do provide positive WOE.

ENERGY EFFICIENCY/ RENEWABLE ENERGY (EE/RE) MEASURES - Additional quantified and unquantified WOE emissions reductions (without NO_x reductions calculated) include a number of energy efficiency measures (Residential and Commercial Building Codes, municipality purchase of renewable energies, political subdivision projects, electric utility sponsored programs, Federal facilities EE/RE Projects, etc.). These efforts are not easily quantifiable for an equivalent amount of NO_x reductions that may occur, but they do provide positive WOE that growth in electrical demand is reduced and this results in reduced NO_x emissions from EGUs.

VOLUNTARY MEASURES - Blue Skyway and Smartway programs encourage voluntary emission reductions in fleets by supporting reduced fuel combustion and use of alternative fuels. Since these are voluntary measures and reporting/verification is not a requirement, the amount of NO_x and VOC reductions that may occur are not easily quantifiable, but they do provide positive WOE from this sector.

8. Is the Attainment Demonstration Approvable?

Consistent with EPA's regulations at 40 CFR 51.1108(c), Texas submitted a modeled attainment demonstration based on a photochemical grid modeling evaluation. EPA has reviewed the components of TCEQ's photochemical modeling demonstration and finds the analysis is consistent with EPA's guidance and meets 40 CFR Part 51, including 40 CFR Part 51 Appendix W – Guideline on Air Quality Models. The photochemical modeling was conducted to project 2017 ozone levels to demonstrate attainment of the standard by the attainment date. Although the modeled attainment test is not met at one of the 20 HGB monitors because one of the monitors was projected to remain above the standard, consistent with our A.D. guidance, TCEQ submitted a WOE analysis that supports that the emission levels in the area are consistent with attainment.

This WOE analysis provides additional scientific analyses based on identification of emission reductions not captured in the modeling, monitoring trends, recent monitoring data (EPA included more recent monitoring data since the SIP submission) and other modeling analyses. The average of the 2016 and preliminary 2017 4th High Data indicates all monitors but one are at or below the standard. This includes the Manvel Croix monitor, the one monitor projected in the modeling to be over the standard, with a value of 73 ppb. The one monitor, which the 2016-2017 average is above standard is just 1 ppb over. The combination of the modeling and the WOE indicate that recent emission levels are consistent with attainment of the standard and demonstrate attainment by the attainment date. We are therefore proposing to approve the attainment demonstration submitted in the December 29, 2016 submittal.

B. RACM

A demonstration is required that all RACM necessary to demonstrate attainment as expeditiously as practicable has been adopted (CAA section 172(c)(1) and 40 CF 51.1112(c)). We consider a control measure to be necessary under the RACM requirement if it: (1) is technologically feasible, (2) is economically feasible, (3) does not cause substantial widespread and long-term adverse impacts, (4) is not absurd, unenforceable, or impracticable and (5) can advance the attainment date by at least a year (57 FR 13498, 13560, April 16, 1992; 74 FR 2945, 2951, January 16, 2009; and 78 FR 55037, 55044, September 9, 2013).

Texas identified and analyzed whether potential control measures would be considered a RACM measure. Texas determined that none of these measures meet the five RACM criteria. We reviewed the RACM analysis and propose to approve the Texas demonstration that the HGB area has met the RACM requirement. We note that to advance the attainment date by at least a year (to July 20, 2017) additional control measures would need to be implemented at the

beginning of 2016. Given the requirement for a SIP revision was published December 14, 2016, it is not feasible that additional measures could be implemented at the beginning of 2016.

C. Contingency Measures Plan

CAA section 172(c)(9) require contingency measures to be implemented in the event of failure to attain the NAAQS by the applicable attainment date or if the area fails to make reasonable further progress. These contingency measures must be fully adopted rules or measures which are ready for implementation quickly upon failure to meet attainment. Implementation of the contingency measures should provide additional emissions reductions of up to 3% of the base year inventory (or lesser percentage that will cure the identified failure). The reductions are to be achieved in the year following the year in which the failure has been identified (57 FR 13498, 13510-12, April 16, 1992). The base year inventory is that specified by CAA section 182(b)(1)(B) and 40 CFR 51.1115.

The Texas contingency measures plan is based on (1) a 2011 base year inventory, (2) a 2% NO_x emissions reduction and a 1% VOC emissions reduction and (3) reductions from 2017 to 2018 due to Federal control measures for on-road motor vehicles. Texas used the EPA MOVES2014a mobile source emissions estimation model to calculate the on-road emissions reductions.

Table 4 is a summary of the Texas contingency measures plan for the HGB area. As Texas has demonstrated that the base year emissions will be reduced by at least 3% from 2017 to 2018, we propose to approve the HGB contingency measures plan.

Table 4. Contingency Measures Demonstration for the HGB Area

Description	NO_x Emissions (tons per day)	VOC Emissions (tons per day)
Base Year Emissions Inventory	459.94	531.40
Percent for Contingency Calculation	2%	1%

(Total of 3%)		
Required 2017 to 2018 Contingency Reductions	9.20	5.31
Total 2017 to 2018 Contingency Reductions due to Federal Measures for On-road Motor Vehicles	24.35	8.78
Contingency Excess (+) or Shortfall (-)	+15.15	+3.47

D. MVEBs

MVEBs are required for ozone attainment demonstrations to ensure that transportation plans, transportation improvement programs and federally supported highway and transit projects are consistent with (“conform to”) the purpose of the SIP. Conformity to the purpose of the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or interim reductions and milestones (81 FR 12264, 12283-84, March 6, 2015). The SIP included attainment NO_x and VOC MVEBs for the 2017 attainment year (table 5). The MVEBs represents the maximum level of on-road emissions of NO_x and VOC that can be produced in 2017 – when considered with emissions from all other sources – which demonstrate attainment of the NAAQS. As our review found that the 2017 MVEBs are consistent with the emissions inventory and control measures that we are proposing provide for attainment, we propose to approve the MVEBs.

Table 5. 2017 HGB MVEBs

Pollutant	Summer Weekday Emissions (tons per day)
NO _x	95.56
VOC	54.40

When reviewing submitted “control strategy” SIPs containing MVEBs, EPA may affirmatively find the MVEBs contained therein adequate for use in determining transportation conformity. EPA’s substantive criteria for determining adequacy of a MVEB are set out in 40

CFR 93.118(e)(4). EPA is evaluating the adequacy of the submitted MVEBs in parallel to this proposed approval action on the attainment demonstration. The NO_x and VOC MVEBs for the HGB area opened for public comment on EPA's adequacy website on May 17, 2018, found at: <https://www.epa.gov/state-and-local-transportation/state-implementation-plans-sip-submissions-currently-under-epa>. The adequacy comment period for these MVEBs will close on June 18, 2018.

Once EPA affirmatively finds the submitted MVEBs are adequate for transportation conformity purposes, these MVEBs must be used by state and Federal agencies in determining whether proposed transportation projects conform to the SIP as required by section 176(c) of the CAA. Within 24 months from the effective date of EPA's adequacy determination for the MVEBs or the publication date for the final rule for this action, whichever is earlier, the transportation partners will need to demonstrate conformity to the new NO_x and VOC MVEBs pursuant to 40 CFR 93.104(e)(3).

E. CAA 110(l) Demonstration

Section 110(l) of the CAA precludes EPA from approving a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and RFP (as defined in section 171 of the Act), or any other applicable requirement of the CAA. This action proposes approval of a plan that demonstrates that already adopted measures both Federal or State will provide levels of emissions consistent with attaining the ozone NAAQS. Since it is a demonstration, it will not interfere with any other requirement of the Act. Also in this action, we are proposing to approve the attainment MVEBs, which are lower than MVEBs proposed to be approved for RFP (83 FR 17964, April 25, 2018), and the contingency measures plan. The lower attainment demonstration MVEBs and on-going emission reductions through the contingency

measures plan both provide progress toward attainment and as such do not interfere with any applicable requirement of the Act.

III. Proposed Action

We are proposing to approve elements of a HGB area SIP revision for the 2008 8-hour ozone NAAQS. Specifically, we are proposing approval of the attainment demonstration, a RACM analysis, the contingency measures plan in the event of failure to attain the NAAQS by the applicable attainment date, and NO_x and VOC MVEBs for 2017. We are proposing approval of the use of TATU's tool and its Unmonitored Area analysis as acceptable for meeting the recommended evaluation of ozone levels in the Unmonitored Area analysis for this SIP approval action. Further, as part of today's action, we are describing the status of our adequacy determination for the NO_x and VOC MVEBs for 2017 in accordance with 40 CFR 93.118(f)(2). Within 24 months from the effective date of our adequacy determination for the MVEBs or the publication date for a final rule approving the MVEBs, whichever is earlier, the transportation partners will need to demonstrate conformity to the new NO_x and VOC MVEBs pursuant to 40 CFR 93.104(e)(3).

IV. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and

- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: May 22, 2018.

Anne Idsal,
Regional Administrator, Region 6.

[FR Doc. 2018-11352 Filed: 5/25/2018 8:45 am; Publication Date: 5/29/2018]